TRIMERIZATION OF ETHYLENE

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Abstract of **JP9020692**

PROBLEM TO BE SOLVED: To selectively and efficiently obtain highly purified 1-hexene from ethylene by using a catalyst composed of a reaction product of a chromium salt with a metallic amide, an inorganic oxide solid, alumoxane and an electron donor compound. SOLUTION: Ethylene is trimerized by using a catalyst composed of (A) a reaction product of chromium salt (preferably chromous chloride or chromic chloride) with a metallic amide [preferably a bis(trialkyl)amide salt, etc., such as lithium diisopropylamide], (B) an inorganic oxide solid (e.g.; silica), (C) an alumoxane (preferably an alkylalumoxane such as isbutylalumoxane) and (D) an electron donor compound (e.g.; dimethoxymethane). The component A is preferably obtained by reacting a chromium salt with a metallic amide in a ratio of (1:3) of the former to the latter in a solvent such as tetrahydrofuran at -20 deg.C to 40 deg.C for 1-5hrs. Water is preferably removed prior to the use of component B. A trimerizing temperature of ethylene is preferably 0-150 deg.C.